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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/772,255

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Jukka Reunamaki

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EXAMINER

BARQADLE, YASIN M

ART UNIT

PAPER NUMBER

2456

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/772,255	Applicant(s) REUNAMAKI ET AL.	
	Examiner YASIN M. BARQADLE	Art Unit 2456	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 March 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on March 23, 2009 has been entered.

Response to Amendment

2. The amendment filed on March 23, 2009 has been fully considered but are moot in view of the new grounds of rejection.

- Claims 1-17 are presented for examination.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1-3, 6-8, and 10-15 are rejected under 35 U.S.C. 102(e) as being anticipated by Young US Patent No. (7161923).

As per claim 1 and 10, Young teaches a method of forming a piconet in a wireless communications device (fig. 5 and abstract), the method comprising:

(a) transmitting a beacon packet from the wireless communication device across a wireless channel during a first predetermined time interval (fig. 9 and col. 5, lines 5-11) ;

(b) scanning the wireless channel from the wireless communication device for a second predetermined time interval, the second predetermined time interval immediately following the first predetermined time interval (col. 5, lines

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5-11. See fig. 9-11);

(c) receiving a piconet joining request packet from a remote wireless communications device during the second predetermined time interval (col. 5, lines 1-15; col. 7, 9-26. See fig. 9-11); and

(d) transmitting a confirmation packet to the remote wireless communications device during a third predetermined time interval, the third predetermined time interval immediately following the second predetermined time interval and before transmitting a second packet (col. 7, lines 23-35 fig. 9-11).

As per claim 2, Young teaches the method of claim 1, wherein the piconet joining request includes a request for a role switch (col. 5, lines 1-15 and col. 7, 9-26. See fig. 9-11)

As per claim 3, Young teaches the method of claim 2, further comprising receiving a beacon packet from the remote wireless communications device ((col. 5, lines 1-15 and col. 7, 9-26. See fig. 9-11).

As per claims 6 and 11, Young teaches the invention as explained in claim 1 and 10 above. Young further teaches

transmitting the additional information with a second beacon packet across the wireless channel (abstract; col. 5, lines 1-15 and col. 7, 9-26. See fig. 9-11)

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As per claim 7, Young s teaches the method of claim 6, wherein the additional information includes available services from the wireless communications device (col. 5, lines 1-15 and col. 7, 9-26. See fig. 9-11).

As per claim 8, Young teaches the method of claim 6, wherein the additional information includes identifiers of devices that are in a piconet with the wireless communications device (abstract; col. 5, lines 1-15 and col. 7, 9-26

As per claim 12, Young teaches the invention as explained in claim 1 and 10 above. Young further teaches

immediately following receipt of the beacon packet, sending a response packet to the remote wireless communications device without associating with the remote wireless communication device when the remote wireless communications device is the only device transmitting device during the predetermined time interval (abstract; col. 5, lines 1-15 and col. 7, 9-26).

Claims 13-15 are rejected with the same rationale as claims 1-3 and 6-12. See the rejection of claims 1-3 and 6-12 above.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4-5, 9 and 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Young in view of Ho USPN. (20040170217).

Regarding claims 4, although Young shows substantial features of the claimed invention including using radio frequency channels, Young does not explicitly show using one or more OFDM symbols.

Nonetheless, this feature is well known in the art and would have been an obvious modification of the system disclosed by Young, as evidenced by HO USPN. (20040170217).

In analogous art, HO whose invention is about a Wireless personal area networks with rotation of frequency hopping sequences, disclose (using one or more OFDM symbols) "In one embodiment, the devices employ orthogonal frequency division multiplexing (OFDM) modulation to communicate data bits on each of multiple frequencies during a channel symbol period. Thus, the OFDM Channel Symbols are at least N sample periods long, where N is the number of frequency bins used to carry one OFDM symbol data"(¶ 0023). Giving the teaching of HO, a person of ordinary skill in the art would have readily recognized the desirability and the advantage of modifying Young by employing the OFDM Channel Symbols of HO so that each channel symbol

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carries some amount of digital data and to communicate data bits on each of multiple frequencies during a channel symbol period. In this way persistent interference is avoided and hence improving network performance.

Regarding claims 5, 9 and 17, Ho teaches wherein the wireless channel employs a frequency hopping pattern (Abstract and ¶ 0014).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yasin Barqadle whose telephone number is 571-272-3947. The examiner can normally be reached on 9:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bunjob Jaroenchonwanit can be reached on 571-272-3913. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Yasin M Barqadle/

Primary Examiner, Art Unit 2456